

Gajbe, 25-v-1976. *Paratypes* and *allotypes* (2 ♀ ♀) collected from the above locality by D. B. Bastawde, 19-vi-1976. *Other locality*: 1 ♀ (immature) collected from Karla Caves, North of Poona, Maharashtra, India. Coll. M. B. Rao, 18-ix-1976.

Discussion: This species closely resembles *Scorpiops montanus* Karsch but can be separated from it as follows: (i) Dorsal keels on caudal segments not much spiniform posterior-

ly but in *S. montanus* dorsal keels of caudal segments much spiniform posteriorly. (ii) Number of setal pores on posterior ventral side of patella sixteen to seventeen in number but in *S. montanus* the number of setal pores fourteen to fifteen in number. (iii) Last pre-abdominal sternum smooth and without keels but in *S. montanus* the last pre-abdominal sternum with well developed median keels.

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DESCRIPTION OF TWO NEW SPECIES OF WOLF-SPIDER (FAMILY: LYCOSIDAE) FROM LADAKH, INDIA¹

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(With six text-figures)

During an expedition led by Dr. Sálím Ali to Ladakh sponsored jointly by the Bombay Natural History Society and the World Wild Life Fund during June-August 1976, for status survey of some rare birds and mammals, Dr Biswamoy Biswas, Deputy Director, Zoological Survey of India and a member of the expedition collected a few specimens of spiders from Ladakh, Western Himalaya, which he kindly sent to me for study.

Among these specimens I came across two new species of spider belonging to the genus

Pardosa, which are described here.

The type specimens will in due course be deposited in the National Zoological Collection, Zoological Survey of India, Calcutta.

Pardosa ladakhensis sp. nov.

General: Cephalothorax and legs pale brown with dark brown patches; abdomen greenish brown. Total length 8.50 mm. Carapace 3.70 mm long, 2.80 mm wide; abdomen 4.90 mm long, 3.40 mm wide.

Cephalothorax: Longer than wide, pointed anteriorly, clothed with hairs and pubescence. Centre of thoracic region provided with a con-

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spicuous fovea. Ocular area dark brown and provided with some spine like hairs. Anterior row of eyes straight shorter than the 2nd row, medians slightly larger than the laterals. Ocular quad wider behind and narrowing in front. Eyes of the second row larger than the others. Posterior eyes (second and third row) placed at the extremities of cephalic region and posterior quadrangle much wider behind than in front as in text-figure 1. Two conspicuous dark brown patches present surrounded by a pale area just behind the third row of eyes as in text-figure 1. Sub-marginal area of thoracic region provided with irregular pale patches as in text-figure 1. Sternum black, heart-shaped, pointed behind and clothed with pubescence and some spine like hairs. Labium dark brown and wider than long. Distal end of maxillae wider and provided with scopulae. Chelicerae moderately strong, inner margin of the fang furrow provided with three unequal teeth. Legs long, clothed with spines and hairs and coxae, femora, patella and tibiae provided with conspicuous irregular greenish brown patches. Metatarsi IV longer than the tibia and patella together.

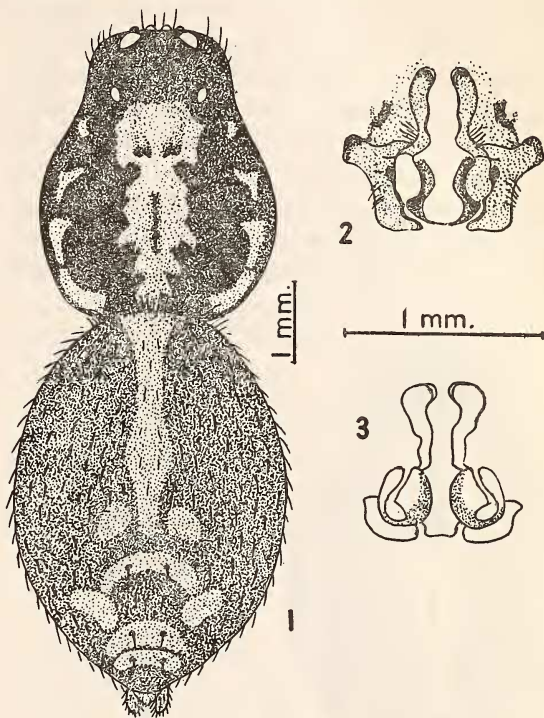
Abdomen: Longer than wide, widest behind the middle, clothed with pubescence and hairs. Anterio-mid-dorsally provided with a longitudinal pale lens shaped marking as in text-figure 1, and rest of the abdomen provided with some pale patches and spots as in text-figure 1. Ventral side with irregular reddish brown patches. Epigyne and internal genitalia as in text-figures 2 and 3.

Holotype female, **Paratype** one female in spirit.

Type-locality: Pulu (c. 4633 m high), Fuchu valley, Ladakh, Jammu and Kashmir, India. Coll. Dr. Biswamoy Biswas, 30-vii-1976.

Discussion: This species closely resembles with *Pardosa tatensis* (Tikader) but can be

separated from it as follows: (i) Sternum black but in *Pardosa tatensis* sternum dark brown. (ii) Ventral side of abdomen provided with irregular reddish brown patches but in *P.*



Figs. 1-3. *Pardosa ladakhensis* sp. nov.

1. Dorsal view of female, legs omitted; 2. Epigyne; 3. Internal genitalia.

tatensis ventral side pale except few sub-lateral brown irregular patches. (iii) Epigyne and internal also structurally different.

***Pardosa alii* sp. nov.²**

General: Cephalothorax, legs and abdomen brown. Total length 7.10 mm. Carapace 3.60 mm long, 2.70 mm wide; abdomen 3.60 mm long, 2.80 mm wide.

² It is with much pleasure that I name this species after the eminent Ornithologist, Dr. Sálím Ali.

Cephalothorax: Longer than wide, convex, narrowing in front, clothed with fine grey and black hairs; cephalic region slightly high. Clypeus vertical. Anterior row of eyes slightly procurved and shorter than the second row of eyes; anterior medians larger than the anterior laterals. Eyes of the second row larger than the others. Posterior quadrangle wider than long and narrower in front than behind as in text-figure 4, and black in colour. Middle of cephalothorax provided with a sharp fovea. Dark brown broad two longitudinal bands extending from bases of third row of eyes to the

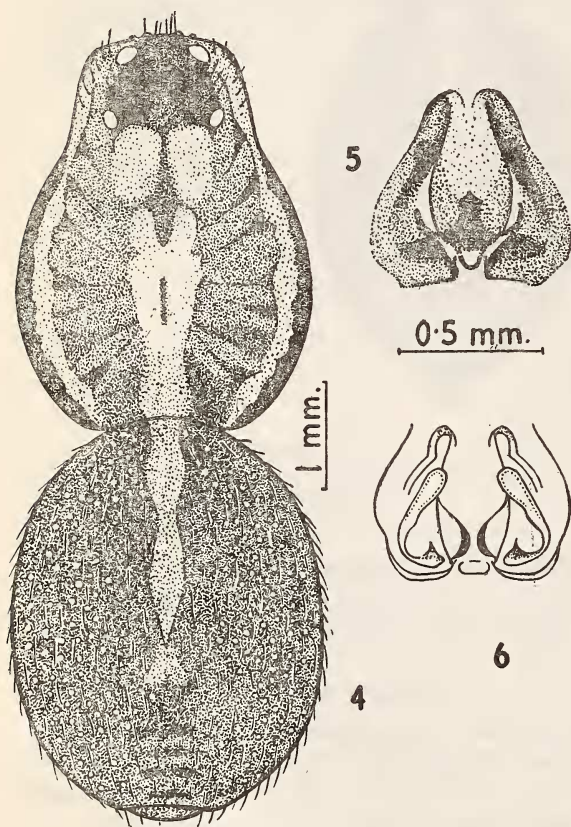
base of cephalothorax. Lateral edges of cephalothorax provided with longitudinal inner pale and outer dark brown bands as in text-figure 4. Sternum nearly heart-shaped, pointed behind, uniform dark brown and clothed with black pubescence. Labium wider than long. Distal end of maxillae wider and provided with scopulae. Chelicerae moderately strong and inner margin of chelicera provided with three teeth. Legs long, moderately strong, clothed with hairs and spines. Dorsal side of femora of all legs provided with two longitudinal brown bands. Metatarsi IV nearly as long as or slightly longer than the tibia and patella together.

Abdomen: Slightly longer than wide, nearly same width both in front and behind. Antero-mid-dorsally provided with a lens-shaped pale marking; clothed with black hairs and pale dots. Ventral side pale. Epigyne and internal genitalia as in text-figures 5 and 6.

Holotype female, *paratype* one female, in spirit.

Type-locality: Chusul (c. 4328 m high) Ladakh, Jammu and Kashmir, India. Coll. Dr. Biswamoy Biswas, 2-vii-1976.

This species resembles *Pardosa ladakhensis* sp. nov. but differs from it as follows: (i) Anterior row of eyes slightly procurved but in *P. ladakhensis* anterior row of eyes straight. (ii) Dorsal side of femora of all legs provided with two longitudinal brown bands but in *P. ladakhensis* femora of all legs provided with irregular greenish brown patches. (iii) Epigyne and internal genitalia also structurally different.



Figs. 4-6. *Pardosa alii* sp. nov.
4. Dorsal view of female, legs omitted; 5. Epigyne;
6. Internal genitalia.

ACKNOWLEDGEMENTS

I am thankful to Dr Biswamoy Biswas, Deputy Director, Zoological Survey of India, Calcutta, for supplying the spiders for study.